Serial No. 09/054,864
Reply Filed: June 4, 2004

REMARKS

In reply to the Office Action mailed December 5, 2003, and in view of the following remarks, reconsideration is requested. Claims 5 and 19-48 remain in the application of which claims 5, 24, 30, 36, 42 and 43 are independent.

Information Disclosure Statement of July 23, 2002

The Applicant notes that a PTO-1449 form submitted with the information disclosure statement filed July 23, 2002, was not signed and returned by the Examiner. Acknowledgement and consideration of that information disclosure statement is respectfully requested.

Rejections under 35 U.S.C. 103

Claims 5, 21, 23, 24, 27, 29, 30, 33, 35, 39 and 41-43 were rejected under 35 U.S.C. §103 in view of U.S. Patent 5,799,150 (Hamilton) and U.S. Patent 6,097,499 (Casey). Claims 22, 28, 34 and 40 were rejected under 35 U.S.C. §103 in view of Hamilton, Casey and U.S. Patent 5,920,572 (Washington). These rejections are respectfully traversed.

The Office Action relies on Casey for teaching the limitation of the "frame by frame flow control" of independent claims 5, 24, 30, 36 and 42.

According to Casey, Col. 10, line 39-50:

> "[A] printer 120 may use a variable host data rate for printing operations using isochronous communications channels. In this alternative, host 110 sends a variable amount of data from frame to frame with the amount of data controlled by printer feedback. That is, printer 120 calculates the data requirement of print mechanism 160 for a future frame and sends the requirement as a feedback message to host 110. Periodic feedback may be used to have a set data amount sent from host 110 at regular intervals. Aperiodic feedback may be used when printer 120 sends a feedback message to host 110 only when the data sent per frame by the host needs to be adjusted."

However, in Casey a "frame is a fixed unit of time in which the host transfers a predetermined amount of data. The host, however, may not allocate the entire frame for sending print data." *Casey*, Col. 1, lines 45-46. Casey, at Col. 6, lines 4-8, also states:

> "Isochronous communications between host 110 and printer 120 takes place within fixed-period frames. Isochronous communications guarantees the transfer of a fixed amount of data during the frame and the data may be sent any time within the frame."

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In other words, Casey teaches that there is a period of time (called a frame) during which an amount of data may be sent from a host to a printer. The printer may inform the host how much print data should be sent during this period of time.

Such a teaching in Casey does not meet the limitations of the independent claims regarding transferring video data of a "video frame." The independent claims have been amended to clarify this distinction between a video frame and a mere period of time during which data is transferred as described in Casey. In particular, independent claims 5, 24, 30, 36 and 42 each recite that a request packet indicates a request "to transfer video data defining a video frame" and sending a plurality of data packets including "the video data defining the requested video frame." Similar limitations also are found in independent claim 43 as amended.

Accordingly, because the independent claims 5, 24, 30, 36, 42 and 43 are distinguishing over the teachings of Casey, these claims are distinguishing over the proposed combination of Hamilton and Casey of the Office Action. The remaining claims are dependent claims and thus are distinguishing for at least the same reasons.

In addition, dependent claims 23, 29, 35 and 41 each recite a limitation such as "the host device further sends, through the output, a data packet including a command field indicating a command to the video processing device," as recited in claim 23. The Office Action relies on Fig. 7 and Col. 7, lines 63-66 of Casey which states: "Fig. 3 is an illustration of . . . [a] printer [that] provides feedback to host 110, over a designated communications channel. . ." The claim states that a data packet with a command field is sent *from* a host *to* a video processing device. The claim does not read on the cited portion of Casey which involves feedback *from* the printer *to* the host.

Independent claim 42 also is distinguishing over Hamilton and Casey because neither Hamilton nor Casey teach the claimed "boundary signal." It appears that, for claim 42, the Office Action was intended to refer to a combination of Hamilton, Casey and Washington in the same manner as dependent claims 22, 28, 34 and 40. This rejection will now be addressed in more detail.

As noted in the prior Reply, each of the dependent claims 22, 28, 34 and 40 recites a "boundary signal indicating whether the data packet includes a last component of the video data

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of the requested frame." The Office Action relies on Washington for teaching this limitation, and on a combination of Hamilton, Casey and Washington for rejection these dependent claims.

The claim language of a "boundary signal" does not read on Washington's use of "sync bytes." The plain language of the claim makes it clear that the boundary signal in a data packet indicates whether that data packet includes the last component of the requested video frame. The term "component" is defined at page 7, lines 9-10 of the present application: "A component is a portion of the data being transferred, such as a luminance component of a pixel of video data." In Washington, whether a transport packet includes the last component of any video frame cannot be determined from the mere "sync byte." Every sync byte in every transport packet is the same. The sole purpose of the sync byte in a packet is to identify boundaries (start and end) of the *packet* in a data stream; the sync byte does not identify anything about the data being transferred in the packet. Accordingly, claims 22, 28, 24 and 40 are patentable over Hamilton, Casey and Washington.

The Office Action relies on a misquoted portion of Washington. Washington does not state that the boundaries of each packet need not begin on a transport packet boundary as asserted in the Office Action at the top of page 6. Rather, Washington states that the position of each transport packet in a transport stream might not be known *a priori*. That is because "the *transport stream* . . . need not begin on a transport packet boundary." *Washington*, Col. 10, lines 58-60, emphasis added. Because the position of each transport packet in a transport stream might not be known *a priori*, a "sync byte" is provided. In particular, Washington states that a:

> "transport stream is a stream of bits formed from consecutive transport packets . . . .. In order to recover the information in the transport packets, the packet framer 120 must determine where each packet begins and ends (i.e., the boundaries of each packet). However, the transport stream . . . need not begin on a transport packet boundary. Illustratively, the packet framer locks onto the boundaries of the transport packets and maintains the synchronization with the transport packets . . . . [A]ll transport packets begin with a predetermined sync byte. "

Washington, Col 10, lines 53-65. How the sync bytes are used to locate transport packets is described from Col. 10, line 65 to Col. 11, line 20. Thus, Washington teaches that a "sync byte" is at the beginning of each transport packet, and that this sync byte enables some processor, such as the packet framer 120 to "determine where each packet begins and ends." *Id*.

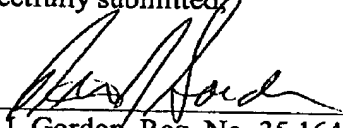Therefore, claims 22, 28, 34, 40 and 42 are distinguishing over the cited references.

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CONCLUSION

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this reply, that the application is not in condition for allowance, the Examiner is requested to call the Applicants' attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, please charge any fee to **Deposit Account No. 50-0876.**

Respectfully submitted,

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